

Comments of Scott Aaronson,
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Hybrid/Virtual Field Hearing
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Good afternoon. My name is Scott Aaronson. I am Senior Vice President, Security & Preparedness at the Edison Electric Institute (“EEI”). I am pleased to participate in this hearing to examine challenges to the nation’s communications networks in the wake of Hurricanes Fiona and Ian, and Tropical Storm Nicole. The issues that the Federal Communications Commission (“FCC” or “Commission”) is examining regarding the reliability, resiliency and continuity of communications networks are of vital importance to electric companies, which also face unique challenges during and after hurricanes as well as other emergency situations.

EEI is the association that represents all U.S. investor-owned electric companies. Our members provide electricity for more than 220 million Americans and operate in all 50 states and the District of Columbia. As a whole, the electric power industry supports more than seven million jobs in communities across the United States. EEI’s members are committed to providing clean, affordable, and reliable electricity to customers now and in the future. Electric companies are among the nation's largest users of communications services and operate some of the largest private communications networks.

I. Protecting the nation's energy grid and ensuring a reliable supply of energy are top priorities for EEI and its member companies.

Having a reliable supply of electricity is more than just a convenience. It is a necessity, and our economy as well as our way of life depend on it. For electric companies, maintaining a high level of reliability therefore requires constant commitment. Today, the North American electric system is comprised of a complex interconnected network of generation, transmission, and distribution systems. The structure of the grid helps to make reliability possible, but what makes it a reality is the coordination in operations of the electric companies that make up this network. To achieve the level of reliability that is required by mandatory standards and expected by customers, the electric power industry has made significant investments in planning, exercising, as well as hardening and modernizing the electric grid that enables electric companies to be far more responsive in times of emergency.

A. Investment in reliability, safety, security, and resiliency of the grid

Since Superstorm Sandy in 2012, EEI members have invested more than \$340 billion to enhance the electric grid to address the threats posed by these storms. Types of resilience investments include, but are not limited to:

- Hardening or undergrounding power lines that serve critical community facilities and services to better withstand higher winds and wildfires.
- Upgrading and replacing wooden transmission and distribution structures with concrete or steel structures and installing tensioned cables designed to add stability to the structures.
- Deploying smart meters, intelligent sensors, and other technologies that help to prevent outages and shorten restoration times.
- More aggressively maintaining vegetation along rights-of-way and around power lines to reduce a leading cause of outages.
- Using drones to inspect transmission corridors and rights-of-way.

- Identifying substations vulnerable to flooding and investing in both temporary and permanent hardening measures to protect those assets from future flood risk.

Further, since 2010, EEI's member companies have invested more than \$1 trillion to build smarter energy infrastructure and to integrate new cleaner generation into the electric grid. These investments are critical to helping protect the grid from extreme weather and cyberattacks; predict, mitigate, and prevent outages; and restore electricity faster when outages do occur.

II. Industry exercises improve incident response and recovery

Over the years through regular exercises and actual incident response, electric companies have developed processes and procedures to improve their response and recovery to major incidents. Industry exercises offer an invaluable opportunity for industry and government officials at all levels to evaluate crisis communications and security and response plans to identify new risks and develop actionable mitigation strategies. Industry exercises also helps our industry to enhance cross-sector coordination and develop a more detailed understanding of interdependencies and potential impacts to other critical infrastructure sectors. To this end, in recent years, EEI invites communications sector representatives, including FCC staff, to our annual National Response Event tabletop exercise that tests our companies' mutual assistance efforts.

III. Mutual assistance supports electric sector incident response and recovery.

The electric industry has invested great effort to collaborate to establish mutual assistance programs to facilitate restoration of power when it is disrupted. The electric industry is unique in finding common cause to work together to operate the system in a safe, secure, and efficient manner as well as to defend it and to facilitate restoration when power is disrupted. We are very proud of our mutual assistance programs, in which electric companies voluntarily send staff and equipment to help other electric companies recover from emergencies. We consider mutual assistance as the hallmark of our industry. Part of this coordination includes on-going emergency response planning prior to incidents wherein electric companies work hand-in-hand with local emergency responders, critical infrastructure owners, and other stakeholders to identify critical facilities that are priorities for restoration. The recent mobilization of more than 44,000 workers from at least 33 states and the District of Columbia to aid in restoring power for customers following Hurricane Ian's severe devastation in Florida is an example of these efforts at work.

IV. Early coordination with state and local, and federal authorities is essential to restoration.

Every electric company has a detailed plan for restoring power after storms. Typically, one of the first steps is to make sure that power is no longer flowing through downed lines and then determine how to access sites and conduct damage assessments. Electric companies then work to restore service based on established industry prioritization practices and local jurisdictional requirements. During service restoration, electric companies continue to work closely with key stakeholders, including state and local officials, critical infrastructure providers,

and major customers to restore essential services safely and as efficiently as possible. Indeed, generally it is in the Emergency Operation Centers (“EOCs”) that coordination of restoration efforts is conducted in concert with state/local officials and critical customers. It is important to understand that much of the communication and coordination is designed to occur at the EOCs and is available to any communications provider with a representative at the EOC. Representation at the EOC by all stakeholders from relevant industry sectors is crucial, as it will improve collaboration, address exceptions, and help maintain confidence and consistency in the recovery process.

Issues around service restoration can also be resolved effectively on an event-specific basis through multi-stakeholder participation in state and/or local EOCs. These meetings provide the opportunity not only to establish critical relationships between electric company and communications provider subject matter experts, but also to identify the locations crucial to network stability in an electric company’s outage management system that should be understood during recovery efforts. Accordingly, the Commission should encourage stakeholders to utilize existing efforts, state and local EOCs, FEMA regional calls, or energy-sector led situational awareness calls as excellent opportunities to garner real-time logistics and restoration timelines.

V. Cross sector coordination enhances resiliency of critical infrastructure.

In 2020, at the suggestion of the FCC, the nation’s leading communications providers and investor-owned electric companies, and their major trade associations, including EEI, established the Cross Sector Resiliency Forum (“CSRF”). The CSRF facilitates coordination and

communication to address existing challenges and provides a venue for collaborative problem-solving to tackle new issues that may arise going forward. Over the last two years the CSRF has achieved a number of outcomes to improve timely and safe restoration of critical services, including:

- Maintaining a list of local cross-sector emergency contacts for participating members to use in the event standard communication methods are not functioning
- Facilitating the sharing of upcoming industry workshops and summits to inform participating members about opportunities for education and collaboration
- Creating working groups built to improve mutual understanding of each sectors' best practices and procedures to improve preparedness and recovery.
- Developing recommendations on practices which have proven successful at facilitating coordination among communications and electric companies with local, state, and national government entities to plan for and respond to disaster events.
- The CSRF also meets twice per year to plan for and review emergency incidents.

The electric power industry recognizes that there is more work to be done to promote overall resiliency and looks forward to continuing to inform the Commission on the CSRF's ongoing efforts to identify and implement resiliency and coordination activities that help ensure critical services will be available to all Americans.

VI. The Commission should continue to encourage collaboration across stakeholders

It is not only important for the Commission encourage communications providers to engage early with state and local authorities, but to also encourage increased coordination between communications providers and electric companies given the evolving nature of communications networks and electric networks. Direct communication among service providers and state and local government officials in the EOCs is the most helpful when coordinating restoration efforts, however, given the evolving nature of communications

networks and electric networks, it is also important that communications providers meet with electric companies regularly and in “blue skies” conditions to identify where electric service is critical to the stability of their communications networks. These meetings provide the opportunity not only to establish critical relationships between electric company and communications provider subject matter experts, but also to identify the locations crucial to network stability in an electric company’s outage management system that are important to be understood during recovery efforts.

Given the potential for fiber cuts to result from debris removal, which is typically performed by state and local government or their contractors, greater involvement by communications providers with state and local officials would help to protect against fiber cuts. There also needs to be information sharing regarding major fiber routes and critical communications paths during emergency recovery efforts. Communications service providers are best positioned to take on the responsibility to proactively inform electric companies where their critical fiber is located.

It is important to underscore that in recent events there were a very limited number of fiber cuts, and to the extent any among those instances were related to electric work, those cuts were likely unavoidable to perform timely restoration of electric service. To preserve infrastructure and decrease inadvertent fiber cuts, the Commission should be applauded for and continue issuing timely public notices encouraging debris removal and utility repair teams to avoid damaging critical communications in areas affected by storms. The Commission issued such public notices in anticipation of Hurricane Ian and Tropical Storm Nicole. The FCC should

also consider focusing on working with the states and localities to improve site access and debris removal, including by promoting training for first responders to avoid inadvertent fiber cuts.

VII. Conclusion

In conclusion, I want to thank you for the opportunity to appear in this proceeding. Our industry supports cross-industry collaboration with respect to responding to large-scale disasters. In sum, it is not only important for the Commission to encourage communications providers to engage early with state and local authorities, but to also encourage increased coordination between communications providers and electric companies given the evolving nature of communications networks and electric networks. This type of early engagement will provide opportunities to establish critical relationships between electric company and communications provider subject matter experts. These existing practices reflect that collaboration between electric and communications providers both before and during emergencies is important because of the mutual reliance on each other's services in restoration activities. Successful collaboration is built on connecting with the right people at the right time and asking the right questions based on the right information.